Albeo Products FAQ

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Other Questions or Comments? Contact ***ALBEO PRODUCT SUPPORT***

Frequently Asked Questions

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Mounting

What type special mounting methods are available (indirect, surface mounted, angled mounting, wall mounting, etc)?

Answer: Mounting options vary from between each product line. However there are a variety of special mounting options that are similar between products. Aside from Threaded Rod Mount, ¾" Pendant Mount, Aircraft Cable Mount (common to all Albeo products), there is also Indirect mounting for the ABH2 and ABHG product lines. ABH2 also includes a Direct/Indirect mounting, supplying light directly above and below the fixture.

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Regulatory, Ratings, Certifications

What is the difference between UL Dry, Damp, and Wet ratings?

Answer: UL dry rating allows for the fixture to be located in an indoor environment which is not directly exposed to excessive moisture. UL damp rating certifies that a fixture may be used in a sheltered outdoor area that is protected from contact with rain, snow, or excessive moisture such as ocean spray. A UL wet rating allows for water to be applied to the fixture from above but not under pressure. The Albeo products and their corresponding UL rating are listed below.

Product	UL Location Rating
ABH2	Damp
ABHG	Damp
ABV1	Damp
ALC4	Damp

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What is IP rating and how do our fixtures rate (total fixture & components)?

Answer: The 'International Protection' or 'Ingress Protection' rating is a measure of how protected and enclosure is from different levels of solid or liquid ingress. The first digit listed classifies the degree of protection against solid object intrusion into the enclosure. The second digit classifies the degree of protection against liquid intrusion into the enclosure. See below for Albeo fixture ratings and an IP classification chart.

Product	IP Rating
ABH2	*No Rating Yet*
ABHG	IP20
ABV1	*No Rating Yet*
ALC4	*No Rating Yet*

*First digit in IP rating (IP**X**X) – Solid Particle Protection*

Level	Object Size Protection	Effective Against
0	----	No Protection
1	>50mm	Any Large surface of the body (like the back of a hand) but non protection against deliberate contact with a body part.
2	>12.5mm	Fingers or similar objects
3	>2.5mm	Tools, thick wires, etc.
4	>1mm	Most Wires, Screws, Etc
5	Dust Protected	Ingress of dust is not entirely prevented, but it will not enter in sufficient quantity, complete protection against contact
6	Dust Tight	No ingress of dust, complete protection against contact.

*Second digit in IP rating (IPX**X**) – Liquid Ingress Protection*

Level	Protected Against:	Qualification
0	Not protected	----
1	Dripping water	Vertically falling dripping water should have no harmful effect
2	Dripping water at 15° Angle	Vertically falling dripping water should have no harmful effect when the enclosure is tilted up to 15° from its normal position
3	Spraying water	Water falling as a spray at any angle up to 60° from vertical shall have no harmful effect
4	Splashing water	Water splashing up against the enclosure from any direction shall have no harmful effect
5	Water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effect
6	Powerful water jets	Water projected in powerful jets against enclosure from any direction shall have no harmful effect
7	Immersion up to 1m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time
8	Immersion beyond 1m	The equipment is suitable for continuous immersion in water under conditions specified by the manufacturer.

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What is NSF and are our fixture compliant (why/why not)?

Answer: NSF stands for National Sanitation Foundation and is responsible for the ratings of products to be used in contamination sensitive processing environments. Fixtures that are compliant with NSF standards prevent contamination in food, water, and other consumer grade production facilities that require sanitary environments. Currently none of the Albeo fixtures have this rating.

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Sensors

What sensor manufacturer is used by GE?

Answer: Albeo products that have sensors installed at the factory use SensorSwitch products. For a list of the sensors used and their datasheets, please see the Sensor Matrix. (link?)

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Can I use other sensor manufacturers besides what GE provides (why/why not)?

Answer: The ABH2 and ABHG product lines can use sensors from other manufacturers as long as the sensor is UL listed and rated for the suitable input voltage, load type, and application temperature. The sensor also must be mechanically secured directly to the fixture or by approved metal electrical fittings.

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What is the difference between an Aisle and a 360 degree sensor?

Answer: An Aisle sensor has a sensitivity that is along a narrow range intended to be used in an aisle way setting such as above an aisle between shelving. A 360 degree sensor is intended for use in an open area and sensitive in all directions.

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What is the difference between On/Off and Dimming?

Answer: An on/off sensor will only turn on a fixture when motion is detected and will then turn off when the motion is no longer detected after a programmable wait period. A fixture with a dimming sensor will turn the fixture on to a programmed light level when motion is detected. After a minimum on time with no motion detected, the fixture will dim to a programmable lower light level. After a programmable amount of time at this lower light level, the fixture will then turn off.

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How does your wireless work?

Answer: Wireless controls use RF similar to cell phones or WIFI to control the on-off state and dimming of fixtures from a remote location. This feature can also be used to monitor fixture operation and to group fixtures for coordinated operation. The wireless feature can also be used in conjunction with sensors on the fixture.

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What is the difference between Stand Alone & Daisy Chain dimming?

Answer: Stand-alone dimming is used when controlling a single fixture independently from a motion sensor or other controller. Daisy chain dimming is used when multiple fixtures dimming levels are controlled together by a single motion sensor or controller. This is achieved by running dimming control lines in parallel with each fixture's dimming control module. Daisy chain can only be used in the ABH2, ABHG, and ALC4 fixture lines.

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Driver

What type of driver is used, constant current or constant voltage? What is the difference?

Answer: These fixtures use both constant voltage (CV) power supplies and constant current (CC) power supplies often referred to as drivers. In fixtures with CV power supplies there is circuitry located either on or near the actual LEDs to provide the constant current needed to properly power the LEDs. In a fixture with a CC driver the additional circuitry is not needed. CC drivers often have dimming control as a built-in feature.

Product	Power Supply Type
ABH2	Constant Voltage
ABHG	Constant Current
ABV1	Constant Current
ALC4	Constant Voltage

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What is emergency battery backup and how does it work in a GE fixture?

Answer: Emergency battery backup is a safety system that allows the fixture to continue to emit light in the case of loss of power from the grid. In the situation that power is lost, the fixture will remain on, usually at a reduced light level that is sufficient to allow for safe exiting of the building. This is currently not available for any of the Albeo products?

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What is the operating current of…

The fixture?

Answer: The fixture operating current varied between each SKU based on number of modules and output. The power consumption of each fixture is listed on the spec sheet in relation to the output and number of modules. The operating current can be simply calculated using desired voltage, fixture power consumption, and the equation below:

$$Operating\ Current\ [Amps] = \frac{Fixture\ Power\ [Watts]}{Fixture\ Voltage\ [Volts]}$$

For example: What is the operating current of an ABH2 241W fixture at 277VAC?

$$Operating\ Current\ [Amps] = \frac{241W}{277V} = 0.87A$$

The operating current in this case is 0.87 Amps

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The LEDs?

Answer: This value varies between each SKU for each product line. The entire list of values is too extensive for this document, but the value can range between 50mA and 900mA.

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Performance

What type of surge suppression is standard and/or available?

Answer: Surge suppression is provided as part of the driver or power supply. Typically this is a 3kV rating but varies depending on the specific model and brand of the driver. A voltage surge suppressor (Cat. No. BSP3-480 by Thomas Research Products) is optional on ABHG and would be mechanically secured to the wiring compartment.

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Applications

Can 0-10V dimming be used to dim the fixture below 10%?

Answer: No. The dimming card used to dim Albeo fixtures can only reduce the lumen output to 10%.

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How many fixtures can be linked together with "Daisy Chain" dimming option?

Answer: The number of fixtures allowed on a continuous daisy chain dimming line is dependent on the 0-10V controller. Each fixture requires a source and sink current of 0.5mA. This means that the 0-10V dimming controller must be capable of supplying the appropriate amount of current for the number of fixtures on the daisy chain.

$$Dimming\ Control\ Current = \#\ of\ fixtures * 0.5mA$$

If there are 84 fixtures intended to be used on a single dimming controller using the Daisy Chain option, the 0-10V controller must be capable of supplying

$$84\ fixtures * 0.5mA = 42mA$$

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How are various key parts serviced in the field (driver cards, dimming modules, driver, etc.)

Answer: The Albeo fixtures all have drivers/power supplies that can be field replaced by qualified persons. Some options like sensors or wireless controllers can also be field replaced. Most other parts are not field-serviceable.

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What are the implications of installing in environment with…

Chlorine (Natatoriums, pools, etc.)

Answer: The chlorine is very corrosive so extended exposure can cause significant damage to any metal parts of a fixture including the enclosure and electrical components.

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Sulfur

Answer: The main concern with Sulfur is that is causes damage to the actual LEDs and causes them to produce less light.

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Other

Where is the date code and how do you decipher it?

Answer: The fixture date code is usually on a label located near where the electrical power enters the fixture. The date code is usually the week number (01-52) and the last two digits of the year (12 for 2012) and would look like 26-12 for the 26th week in the year 2012.

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